

# **TRENDS IN URBAN FOREST RECREATION: TRAIL USE PATTERNS AND PERCEPTIONS OF OLDER ADULTS<sup>1</sup>**

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**ABSTRACT:** Trails provide an ideal setting for older adults to engage in recommended recreation activities such as walking and bicycling. In a statewide survey of Illinois trails, trail use by older adults was examined, and use and user perceptions were compared across different age groups. On-site surveys of 3,400 trail users on 19 urban and rural trails included a subsample of 303 adults 55 years and older. The use patterns and perceptions of older adults differed from those of other age classes along several important dimensions. Older adults tended to use trails more often, but their outings were shorter in duration. Travel distance decreased and transportation to and on the trail shifted toward pedestrian mode as age increased; changes were most noticeable for those 65 and older. Like other age groups, older adults used trails for many reasons, and found recreation, health, and aesthetic benefits more important than socializing and other factors. Complaints about the lack of trailside facilities such as drinking water and toilets were common across age groups, but most respondents felt these problems were minor compared to their overall satisfaction with the trails they used, and support for future trail development was high. Implications for research, planning, and managing trails for older adults are discussed, and suggestions based on study findings are given for marketing trails to current non-users.

Demographic projections have long foretold the "greying of America." The population of adults 55 years and over will be around 52.7 million in 1990, and it is expected to increase more than 40 percent in the next 20 years. This fastest growing segment of the population will account for a full 26 percent of the U.S. population by the year 2010 (Brogue 1985). Demographers and marketers have speculated on the implications our aging population will have for everything from the solvency of our Social Security System (in trouble) to what we will eat for breakfast (more oat bran). Along these same lines, social scientists have looked at the leisure patterns and perceptions of older Americans to find out how we as a society might better serve this growing population.

We know from past studies that older adults participate less often in many leisure activities than other age groups, especially when those activities are out-of-doors and require

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some level of physical exertion (e.g. Unkel 1981, Mobily et al. 1984, Sneegas 1986). We also know that those older adults who do recreate outdoors are inclined to do so close to home, such as in parks or other passive use areas (Godbey and Blazey 1983). But beyond these general findings, we have little detailed information about the outdoor activities that older adults choose, or about their preferences and perceptions of the settings in which they recreate. Much of our information on the leisure behavior of older adults comes from nationwide surveys dealing with a wide range of leisure activities rather than specific recreation activities and settings. Given the benefits that active recreation provides older adults, research focusing on particular activities and the settings in which they take place could yield useful information for recreation planning and programming (MacNeil et al. 1986).

Trails--both urban and rural--are becoming increasingly popular settings for a range of recreational activities (Klar and Kavanaugh 1986). Among these activities are walking and bicycling, two active outdoor pastimes that show proportionately high participation by older adults (Van Horne et al. 1985). As activities, walking and bicycling are less physically demanding than many other forms of active outdoor recreation. They can be done with minimal time or expense, and without a partner. The trail setting may also provide older adults with a pleasing, natural environment that is separated from traffic and other hazards. And in urban areas, trails are often located next to residential neighborhoods, increasing the chances they will be accessible to an older population.

As a recreation activity setting, trails may be well-suited to the study of the outdoor leisure of older adults. Trail recreation minimizes many of the important constraints older adults view as limiting their participation in a given activity, including lack of physical ability, companionship, time, transportation, availability, and financial resources (McAvoy 1979, Kaplan 1986). Trail recreation also fulfills many of the important needs older adults seek in their leisure experiences such as socializing, self-fulfillment, closeness to nature, physical exercise, and learning (McAvoy 1979).

This paper examines the trail use patterns and perceptions of older adults, and compares these findings with other trail users. More specifically, the objectives of the research were to identify 1) use patterns including trail activity and length of stay, frequency of use, distance and means of travel to the trail, and related social factors; and 2) perceptions about trail use including likes and dislikes of particular trail attributes, the severity of current trail problems, and the importance of future development issues. Further direction is provided for research, planning, and managing trails to meet the recreation needs of older adults.

## **METHODS**

Data were collected in an on-site survey of Illinois trail users, conducted on weekends in April-October, 1989. A representative sample of 19 trails was selected for study out of the population of 31 "bicycle-trails" defined by the Illinois Department of Conservation (1989) as "rights of way separated from streets and highways with a suitable surface for comfortable riding

on a narrow tire multi-speed bicycle." The selected trails ranged from 0.75 to 55 miles in length, and included those with surfaces of asphalt paving as well as limestone screenings. All of the trails were considered multi-purpose pedestrian and bicycle trails, but only a few allowed horse use. Thirteen of the trails fell within the six-county Chicago metropolitan area, four were in or near other urban areas, and two were in rural areas. The sample reflects the nature of the current system in Illinois, a system of what might be referred to as urban and suburban "community trails" rather than "state," "national," or "backcountry" trail types.

Trained volunteer assistants distributed questionnaires at survey stations located on each trail. Signs and the presence of others encouraged many trail users to slow down and participate, while assistants hailed others with a short appeal. The four-page, 26-item questionnaire was filled out on-site. Free maps and other information were offered in return for completing the questionnaire.

Although it was not possible to obtain a strictly defined random sample using the on-site sampling scheme, survey assistants attempted to get a representative sample of those who were on the trail that day. In some cases this was not possible; fast-moving cyclists and runners were sometimes difficult to stop. The sample may underrepresent these two (mostly younger) types of users, but there is reason to expect that a representative sample of other bicyclists and pedestrian users were included in the survey.

There were 3,400 completed surveys. Horse riders were eliminated from the analysis because their use patterns were very different from the rest of the sample. For the same reason, individuals stating their travel distance to the trail at more than 100 miles were also excluded. To examine the association between age and study items, the sample was segmented into four principal cohorts for analysis: 25 years and under (N= 586), 26-54 years (N= 2,155), 55-64 years (N= 197), and 65 years and over (N= 106).

In examining the data in the oldest cohort, marked differences were found among those 75 and older on the major variables related to use: type of trail use, length of stay, use frequency, travel distance, and mode of transportation. To document these results, this cohort was subdivided into those 65-74 and those 75 and over. Because of the small sample size of the oldest segment (N= 12), these results are reported separately and should be interpreted with caution.

Statistical differences between age groups were tested using ANOVA for comparisons involving continuous data and Pearson chi-square for categorical data. Except where otherwise reported, all results had F or chi-square values significant beyond the .001 probability level.

## RESULTS AND DISCUSSION

### Use Patterns

Trail activity and length of stay. Older adults differed from other age groups in the type of trail activity they engaged in and on the time they spent using trails. Older adults were more likely to be pedestrians than bicyclists; 36.6 percent of those 55-64 and 52.8 percent of those 65 and over walked or jogged versus 22.3 percent of those 25 and under and 27.2 percent of adults 26-54. Trail users 75 and over were the least likely to bicycle the trails; subdivision of the 65+ cohort showed 51 percent of those 65-74 and 76 percent of those 75 and over were pedestrians.

Older adults tended to use trails for a shorter time than other age groups. Adults 55-64 years estimated their time on the trail at 2.2 hours, while those 65 and over had an average trip time of 1.7 hours. Further subdivision of the 65+ cohort data indicated that those 75 and over used the trail and average of only 1.5 hours versus 1.8 hours for those 65-74. These figures were significantly different from adults 26-44, whose trips averaged 2.3 hours, and adults 25 and under, whose trips averaged 2.4 hours.

The type of trail activity engaged in also helped to explain length of stay. Regardless of age, bicyclists used trails about 50 percent longer than pedestrians-- 2.5 hours versus 1.6 hours, respectively.

Together, the effects of age and type of trail revealed a more accurate picture of length of stay (Table 1). For example, knowing that a person was both over 65 and rode a bike helped to give a more accurate estimate of length of stay (2.0 hours) than knowing only that the person was over 65 (1.7 hours) or that he or she was on a bike (2.5 hours).

Frequency of use. Older adults used trails significantly more often than other age groups. Adults 55-64 years averaged 75 trips per year, and those 65 and over took an average of 85 trips per year. Subdivision of the oldest age group showed the pattern continuing, with those 65-74 taking an average of 83 trips per year and those 75 and over taking an average of 107 trips. Participation rates by older adults were significantly higher than for adults 26-44 (42 trips) and those 25 and under (52 trips).

Increased leisure time associated with retirement may be partly responsible for the higher level of trail participation by older adults (Robinson 1989), although others have argued to the contrary (MacNeil et al. 1986). Whatever the case, these higher levels of participation seem to go against the preconceived notions of some that older adults are less active than other population segments in a given recreation activity. Combined with study findings on length of stay, it is possible that older adults recreate more frequently on a day-to-day basis, but have less time, endurance, or desire for longer trail excursions. MacNeil et al. (1986) make the distinction between constraints that limit older adults' activity participation and those that prohibit participation, and it may be that intervening factors such as these would help explain shorter trips.

Trail accessibility. Studies on the leisure behavior of older adults and other populations have shown that the accessibility of recreation resources can have an important effect on participation. McAvoy (1979) and Kaplan (1986) found transportation to be among older adults' top constraints to recreation participation; Bialeschki and Henderson (1988) found accessibility to be a moderately important reason among a general sample of Wisconsin residents who felt constrained in their use of trails.

Two important aspects of accessibility are travel distance and mode of transportation. Those 55 and over traveled significantly shorter distances to reach the trail than those under 55. Average travel distance was 7.2 miles for those 25 and under, 8.4 miles for adults 26-54, 6.6 miles for those 55-64, and 4.6 miles for adults 65 and over. Subdivision of the oldest age group showed an average travel distance of 4.9 miles for those 65-74 and 2.5 miles for those 75 and over.

Adults 55 and over were more likely to come on foot rather than bicycle to the trail. The percentage of pedestrians 65 and over was twice that of those 55-64 (24 vs. 12 percent). Except for those 75 and over, there was little difference in the percentage of older adults who drove to the trail. Forty-six percent of those 55-64 and 44 percent of those 65-74 drove to the trail, while only 33 percent of those 75 and over drove.

The combined effects of travel distance and mode of transportation are shown in Table 2. Adults over 55 who came on foot usually did so from a mile away, versus an average of about 2 miles for those under 55. One implication of these findings is that older adults who are not able to drive (particularly those in the highest age groups) may be significantly more constrained by travel distance in their ability to use trails. The distance constraint also seems to apply to those older adults who do drive, and to those 65 and over who bicycle to get to trails. These constraints lessen the accessibility of a given trail for those older adults who might otherwise consider using it.

Socio-behavioral aspects. Older adults differed very little from other groups in the socio-behavioral aspects of trail use. There was a uniform ranking across age groups in selections from a list of reasons why they chose to use the trail that day. "Recreation and pleasure" was the top reason across age categories with 87 percent of all mentioning it, followed closely by "health and fitness" (76 percent) and "scenery and natural environment (61 percent)." Less important reasons were "off-the-road safety" (35 percent) and "social-family outing" (34 percent); "commuting-traveling to another place" was mentioned least often why respondents used the trail (9 percent).

Party size and composition were also very similar across age groups, with 76 percent coming to the trail alone or with one other person. One exception to this similarity was that adults 65 and over were only half as likely (12 vs. 23 percent or higher) than any other group to come to the trail with companions other than their spouse.

MacNeil et al. (1986) emphasized the importance of identifying the factors affecting

older adults' participation in active leisure. These findings show that as a recreation activity setting, trails might not demand the level of social engagement that many older adults view as limiting their participation in different leisure activities. Further research is needed to better define the needs and constraints of social dynamics in the leisure of older adults.

### **Trail Perceptions**

Preferences for trail attributes. It was previously mentioned that "scenery and the natural environment" was an important reason why respondents used trails. In answers to two open-ended questions about trail preferences, scenic beauty was consistently mentioned as the top attribute that people liked about the trails they used (Figure 1). The finding was consistent across all groups, and those 65 and over mentioned it more frequently than any other age group. Other aspects of the natural environment were also listed as important positive trail attributes, including trees, water, topography, and nature. Preferred trail- and management-related attributes included trail surfacing, length, location, safety, and lack of cars. There was also a high level of agreement among age groups about trail attributes that they disliked (Figure 2). The top five negative trail attributes were rough sections of trails, rude behavior of other users, frequent street crossings, crowded conditions, and litter.

Because of the way the preference data were collected it was not possible to statistically determine differences due to age. However, examination of relative frequency magnitudes in Figures 1 and 2 showed that trail preference attributes were fairly consistent across age groups, with a few exceptions. Like the other age groups, adults 65 and over ranked a "smooth trail surface" second, but the percentage who mentioned it was somewhat lower than in other groups. This may be because fewer adults 65 and over bicycled the trail, and were thus less affected by potholes and other rough spots. "Nearby location" was another positive attribute for which older adults differed in preference. A higher percentage of those 55-64 and 65 and over tended to cite the nearby location of the trail as an asset than did those under 55. Among the negative trail attributes, those 55 and over were more vocal about rude behavior of other users, and those 55-64 indicated the least concern to crowding.

The study results show that scenery and the aesthetics of the natural environment are principal attractions of trails as settings for leisure activity. These aspects seem to be as important, if not more important, to older adults than to users of other ages. Walking and bicycling are activities that older adults can do easily off trails, but the trail setting may provide older adults with something more than a safe strip of asphalt upon which to recreate or keep fit. This reasoning is supported by McAvoy (1979), who found that "closeness to nature" was among the top needs of older adults in explaining leisure participation. Additionally, Godbey and Blazey's (1983) study of older people in park environments reported the positive mental and emotional benefits of nature.

Perception of trail-related problems. Respondents were asked to rate the severity of 14 potential trail management problems on the trail where they were surveyed. Few of the issues were rated "major problems"; mean scores never went above 2.5 on a five-point scale of "not a

problem - major problem." There was relative uniformity across age groups among issues considered most and least severe. Of the 14 issues, lack of drinking water and lack of restrooms were consistently rated among the most important problems; and personal safety, vandalism, and user conflicts were considered among the least significant. The only substantial discrepancy among age groups occurred in rating the issue of trailside services. Those under 55 felt more strongly about the lack of services such as food and bike repair near the trail than those 55 and older. This difference in perception could be due to the ways in which different age groups use trails. As mentioned previously, older adults tend to be pedestrians and to use trails for a shorter time. Thus, they would have less of a need for these services.

Attitudes towards future trail development issues. Finally, respondents were asked to rate on a five-point scale the importance of eight development issues in the future of Illinois trails. Findings showed a high degree of consensus in the mean ranking of these issues across age groups. "Build more trails," "build longer trails," and "link together existing trails" consistently ranked as the top three issues, and "designate street and roads as bike routes" and "develop bike commuting facilities" were the lowest ranked issues. The only difference between groups in the ratings was one of magnitude; adults 55 and over tended to rate a given issue lower in importance than those under 55. This tendency was most apparent when contrasting the mean ratings of those 65 and over with those between 26 and 54-- the mean scores of the issue rated highest in importance to those 65 and over was nearly equivalent to the mean of the least important issue to those 26-54. Perhaps older adults were more conservative in using the rating scale, or they may have actually perceived future trail issues as less of a concern than other adults did.

## **RECOMMENDATIONS FOR MANAGEMENT AND RESEARCH**

The trail use patterns and perceptions of older adults showed differences as well as commonalities when compared to other age groups. Those 55 and older used trails more frequently, did so for a shorter time, and were more likely to be pedestrians than those under 55. Like other age groups, older adults saw multiple benefits in using trails, and found recreation, health, and aesthetics more important reasons than socializing or commuting. Lack of trailside facilities such as drinking water and toilets were common complaints across age groups, but most problems were viewed as minor compared to people's satisfaction with the trails they used. All age groups offered strong support for future trail development.

These findings have implications for the management and marketing of trails for older users, as well as implications for further research:

Location. Because older adults are more constrained by distance and transportation than other age groups, urban trails should be located close to where they live. In some cases, trails can be built and integrated within new development, such as retirement home communities. In other cases, spurs can link neighborhoods to an already existing trail system. When developing trails for older adults, planners should think in terms of a 1-mile neighborhood service area to make them accessible to those on foot. This 1-mile figure is based on average travel distance for older

adults in this study, and further research is needed on the travel and use patterns to more specifically define market areas for planning and design.

Length. Trail design and management need not always cater to the largest common denominator, and in some cases building urban trails specifically for older adults could pay off. Although older adults support the future development of long trails and trail linkages, they may find shorter trails closer to home more suited to their everyday needs. Trails 5 miles and less in length built on nearby urban open space could provide attractive opportunities for a pedestrian-oriented clientele. This distance takes into consideration an average length of stay of 1.7 to 2.2 hours. In some cases this shorter length might prevent high levels of bicycle use and the resulting crowding and user conflict. Clearly more research is needed on the optimal length of trails to more definitively answer these important management questions.

Configuration. Open space is difficult to find in most urban areas. Trail related recreation activities, however, are usually confined to a narrow paved corridor, and thus in many cases trails may be integrated successfully with existing land uses. Circular trails can be developed around the perimeters of parks, golf courses, ponds, cemeteries, and other open areas, while linear trails can make use of urban floodplain, parkway, and abandoned railroad corridors. Loop trails on square parcels or wide corridors make the most efficient use out of small open spaces, and allow users to make a full circuit without returning the same way they came. A large loop can be subdivided into two smaller ones with the addition of a middle trail that gives people different options for trip length and route choice. Finding the space for short urban trails might be easier than for long distance trails because such land is more likely to be in public or quasi-public ownership. Creative design of trails within small spaces can maximize use potential and enhance user experience.

Marketing Trails to Older Adults. Although participation in active recreation generally decreases with age, recent statistics show that the percentage of fitness-conscious older adults is rising rapidly. The Gallup Poll showed that the population of adults 50 and over who exercise regularly increased 46 percent during 1984-1986, and there is no indication of this trend decreasing (Waldrop 1989). "Exercise-walking" is an activity dominated by those over 55, and an estimated 20 percent of this age group goes walking once or more a week (Doyle 1989). Programs by park districts, trail organizations, health organizations, and private sector recreation and fitness enterprises should target the older adult who lives close by, and promote the multiple recreation, fitness, and aesthetic benefits of trails. Trails are an ideal setting for cheap, healthful, recreation activities that can be done at one's own pace and time schedule, and without a partner. By capitalizing on the fitness boom and by appealing to the needs and constraints of the older adult, trail managers are likely to capture a greater share of current non-users. Research aimed at further defining the needs and constraints for active leisure participation could be applied towards these marketing efforts, especially studies that look at the recent trends in fitness and active recreation by older adults.

Anticipating Future Trail Demands. Finally, studying the current trends in trail recreation by

older adults will help planners and managers provide for the future generation of older adults. It is also important, however, to examine the current activities of younger generations for changes down the road. This may be especially true in terms of long-term changes in outdoor recreation when the "baby boomers" become older adults.

Defined as those born between 1946 and 1964, the baby boom generation is now between 25 and 44 years of age and numbers 78 million-- about a third of the population. Findings from this study and others indicate a high demand for trails and active outdoor recreation. In the present study, baby boomers were by far the largest population segment represented in the sample, accounting for 58 percent of the respondents.

The important long-range question for planners and managers then is: "To what degree will the level of demand for trails be maintained when baby boomers come of age?" The findings presented in this paper would seem to point towards a continued and increased popularity in trails for the next generation. Although baby boomers may drop out of high-risk or high physical endurance sports, urban and rural trails provide recreation activity settings that should remain appealing.

These conclusions agree with market research forecasts of the leisure behavior of aging baby-boomers. In examining the marketing implications of the "new old" in his book Successful Marketing to the 50+ Consumer: How to Capture One of the Biggest and Fastest Growing Markets in America, Ostroff (1989) says this about the future of leisure for the baby boom generation:

Having built their identity as America's youth generation, the boomers will not enter the "second 50" years of life gracefully. Instead, they'll do everything they can to delay or counteract the effects of aging. And in the process, they will create an ever-growing demand for the health and fitness industry... Some products and services will be especially hot. The rising popularity of weekend vacations, for example, along with the interest in fitness will create a huge market for "wellness weekends." The quest for social fulfillment along with the fitness movement will create a boom in sports leagues and group activities. Products and services for fitness-walking may have the broadest appeal of all (p. 59; emphasis added).

And in studying the psychographics of baby boomers' leisure behavior patterns in a survey for the President's Commission for Americans Outdoors, Bryant (1987) speculates that:

Though the baby boom's activities may change with age, the generation is likely to participate in recreational activities at a higher level throughout its life than today's older generation. This will boost the demand for parks, marinas, bike paths, nature preserves, and other recreational facilities for decades to come (p. 42; emphasis added).

With these points in mind, future trail development on a variety of scales would seem to be a policy objective worth striving for.

### **LITERATURE CITED**

- Bialeschki, M.D., and Henderson, K. 1988. Constraints to Trail Use. Journal of Park and Recreation Administration 6(3): 20-28.
- Brogue, Donald J. 1985. The Population of the United States: Historical Trends and Future Projections. New York: The Free Press.
- Bryant, Barbara E. 1987. Built for Excitement: Five Outdoor Psychographic Types. American Demographics 9(3): 38-42.
- Doyle, Thomas, B. 1989. Survival of the Fittest (results from the National Sporting Goods Association's 1987 Sports Participation Survey). American Demographics 11(5): 38-41.
- Godbey, Geoffrey, and Blazey, Michael. 1983. Old People in Parks: An Exploratory Investigation. Journal of Leisure Research 15(3): 229-244.
- Illinois Department of Conservation. 1989. Illinois Bicycle Trails (brochure). Springfield, Illinois: Department of Conservation.
- Kaplan, Max. 1986. The Elderly and Outdoor Recreation. pp. Demand-25-32 IN A Literature Review: President's Commission on Americans Outdoors. Washington, D.C.: U.S. Government Printing Office.
- Klar, Lawrence, and Kavanaugh, Jean S. 1986. Hiking Trail Systems in the United States. pp. Activities-81-90 IN A Literature Review: President's Commission on Americans Outdoors. Washington, D.C.: U.S. Government Printing Office.
- MacNeil, Richard, Teague, Michael, McGuire, Francis A., and O'Leary, Joseph T. 1986. Aging and Leisure: A Literature Synthesis. pp. Special-103-111 IN A Literature Review: President's Commission on Americans Outdoors. Washington, D.C.: U.S. Government Printing Office.
- McAvoy, Leo. 1979. Leisure Preferences, Problems and Needs of the Elderly. Journal of Leisure Research 11: 40-47.
- Mobily, Kenneth E., Leslie, David K., Wallace, Robert B., Lemke, Jon H., Kohout, Frank J., and

- Morris, Martha C. 1984. Factors Associated with the Aging Leisure Repertoire: The Iowa 65+ Rural Health Study. Journal of Leisure Research 16(4): 338-343.
- Ostroff, Jeff. 1989. An Aging Population: How Businesses Can Profit. American Demographics 11(5): 26-28+. (Article excerpted from: Successful Marketing to the 50+ Consumer: How to Capture One of the Biggest and Fastest Growing Markets in America. New York: Prentice-Hall).
- Robinson, John P. 1989. Time's Up (a summary of the Americans' Use of Time Project). American Demographics 11(7):33-35.
- Sneegas, Janiece L. 1986. Components of Life Satisfaction in Middle and Later Life Adults: Perceived Social Competence, Leisure Participation, and Leisure Satisfaction. Journal of Leisure Research 18(4): 248-258.
- Unkel, Margot B. 1981. Physical Recreation Participation of Females and Males During the Adult Life Cycle. Leisure Sciences 4(1):1-28.
- Van Horne, Merle J., Szwak, Laura B., and Randall, Sharon A. 1985. Outdoor Recreation Activity Trends: Insights from the 1982-1983 Nationwide Recreation Survey. pp. 109-130 IN Proceedings: 1985 National Outdoor Recreation Trends Symposium II, Volume II, Concurrent Sessions. Atlanta, Georgia: USDI National Park Service, Southeast Regional Office.
- Waldrop, Judith. 1989. Feeling Good: Fitness Centers Need to Sell to an Aging Population. American Demographics 11(3): 6.

Table 1.

Average Length of Stay (hrs.), by Age Group and Trail Activity Type a/

Age Group	Trail Activity Type	
	Bike	On Foot
25 and Under	3.6	1.7
26 - 54	2.5	1.6
55 - 64	2.5	1.5
65 and Over	2.0	1.4

a/Significance of ANOVA main effects for Age:  $p = .03$ ;  
 Use Type:  $p < .001$ ; Age x Use Type interaction not significant

Table 2.

Average Distance to Trail (mi.), by Age Group and Mode of Transportation a/

Age Group	Mode of Transportation		
	Bike	Auto	On Foot
25 and Under	5.0	11.9	2.1
26 - 54	5.2	12.7	2.1
55 - 64	6.2	8.5	1.1
65 and Over	3.2	7.4	1.2

a/ Significance of ANOVA main effects for Age:  $p = .03$ ;  
 Mode:  $p < .001$ ; Age x Mode interaction:  $p = .02$